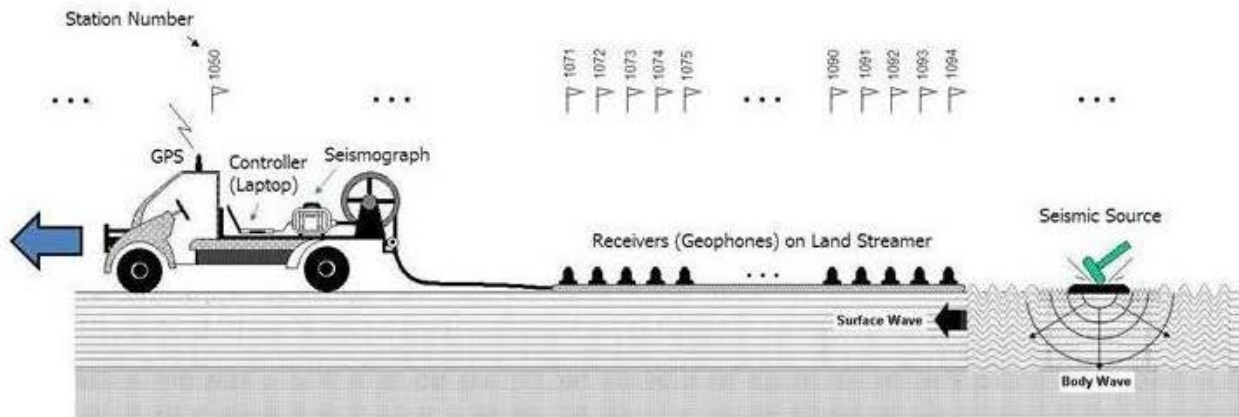


Multichannel Analysis of Surface Waves (MASW)

What is MASW?

First introduced in *GEOPHYSICS* (1999), the multichannel analysis of surface waves (MASW) method is one of the [seismic survey](#) methods evaluating the elastic condition (stiffness) of the ground for geotechnical engineering purposes. MASW first measures seismic surface waves generated from various types of seismic sources—such as sledge hammer—analyzes the propagation velocities of those surface waves, and then finally deduces shear-wave velocity (V_s) variations below the surveyed area that is most responsible for the analyzed propagation velocity pattern of surface waves. Shear-wave velocity (V_s) is one of the elastic constants and closely related to Young's modulus. Under most circumstances, V_s is a direct indicator of the ground strength (stiffness) and therefore commonly used to derive load-bearing capacity. After a relatively simple procedure, final V_s information is provided in 1-D, 2-D, and 3-D formats.

[Advantages](#) [Overall Procedure](#) [History of Surface-Wave Method](#) [MASW-Types](#) [Applications](#)



Stiffness Map

